Arborgen seeks to legalize Genetically Engineered *Eucalyptus* Trees in U.S. - Brazil is not far behind

"Eucalyptus is the perfect neo-liberal tree. It grows quickly, turns a quick profit in the global market and destroys the earth."—Jaime Aviles, La Jornada

ArborGen, the international leader in **genetically engineered** (GE) tree research and development, is moving rapidly forward with plans to commercially release their GE tree "products" in both the United States and Brazil. ArborGen, headquartered in South Carolina in the United States, has received preliminary approval from the U.S. government to release more than a quarter of a million GE cold-tolerant, low-lignin, flowering eucalyptus trees in **seven states** across the southeastern U.S. This is a major step toward the unregulated commercial release of large-scale plantations of GE *Eucalyptus* trees. ArborGen has already started the process of petitioning the government for permission to commercially develop GE *Eucalyptus* plantations as soon as 2010. In Brazil ArborGen has stated they plan to commercially release GE *Eucalyptus* as soon as 2012, but given the state of the technology in the U.S., it could be even earlier.

Plantations of GE eucalyptus would be used for paper pulp, so-called "second generation" *cellulosic transport fuels* or wood-fired electricity production. These cold tolerant GE eucalyptus tree plantations pose an unprecedented threat to forests both in the U.S. and globally. The cold-tolerance trait will allow development of GE eucalypt plantations over a much wider geography than *Eucalyptus* trees are currently able to grow. In the same way that conventional *Eucalyptus* trees have been a social and ecological disaster for the forests and forest dependent communities in the regions where eucalypt plantations currently grow, GE cold-tolerant eucalypts will threaten communities and forests over greatly expanded regions.

In the U.S. southeast, one in five forested acres is made up of monoculture pine plantations, but the area's cold winters have made growing eucalypts impossible. *Eucalyptus* trees may soon replace these pine plantations, with significant impacts. Eucalyptus trees, for example, use 2.5 times the water of pine trees and have roots that grow much deeper than pine trees, threatening ground water sources in a region already experiencing extreme drought in many areas.

Large plantations of non-genetically engineered eucalypts have depleted the availability of fresh water for communities, forests and other ecosystems. In the Lumaco District of **Chile**, for example, some indigenous Mapuche communities are completely surrounded by eucalypts plantations. While they previously had year-round access to fresh water, today they must truck water in because the eucalypts plantations have depleted the

local water supply. In addition, the chemicals used on the eucalypts plantations have contaminated the ground water, leading to rising rates of sickness in Mapuche communities.

Eucalyptus trees are also much more flammable than pine plantations. In the spring of 2007, wildfires in forests and pine plantations of Georgia and Florida burned for weeks on end. If these had been eucalypts plantations, the fires would have been significantly worse. A dramatic example of the danger of eucalypts fires was seen in Australia earlier this year. Raging wildfires, exacerbated by a drought, moved at over 100 kilometers per hour, devastating wildlife and killing 173 people.

Eucalyptus trees, which are highly invasive, also produce a compound that inhibits the growth of other plants, enabling the eucalypts to form monocultures when it escapes from the plantations. According to the *Introduced Species Summary Project* of Columbia University, "The loss of biodiversity and habitat is a great threat from the … eucalyptus. It creates virtual monocultures and can rapidly take over surrounding compatible areas, completely changing the ecosystem."

Eucalyptus grandis, one of the species of eucalypts used in the GE *Eucalyptus* hybrid, is also a known host for the deadly pathogenic fungus *Cryptococcus gattii. Cryptococcus gattii* can cause fatal fungal meningitis in people and animals that inhale its spores. This fungus was previously found only in the tropics, but has recently been found in British Columbia in Canada and in the Pacific Northwest U.S.

In addition to these dangerous impacts, legalizing GE *Eucalyptus* trees would open the door to the commercial release of other GE forest trees, including trees with native wild relatives, such as poplar and pine, that would inevitably and irreversibly contaminate native forests with GE traits, devastating forest ecosystems, wildlife and communities that rely on the forest. Once GE trees escape, there is no way to call them back. The only way to stop genetic contamination of native forests is to ban the commercial release of GE trees before it is too late.

The **STOP GE Trees Campaign** is mobilizing to fight this threat. We are bringing together experts in genetic engineering, forest protection, wildfire, soils, water and eucalypts to develop the campaign to stop ArborGen's plans. If you know of experts who can help, please contact us!

We need your help! This will be a lengthy battle — **ArborGen** has millions of dollars in profits at stake and will be activating their PR machine. Please help us stop these deadly GE *Eucalyptus* plantations.

To be alerted to updates on this situation and get involved in the fight to stop GE eucalyptus trees, email us at info@globaljusticeecology.org or visit our website at http://www.nogetrees.org

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